Selective

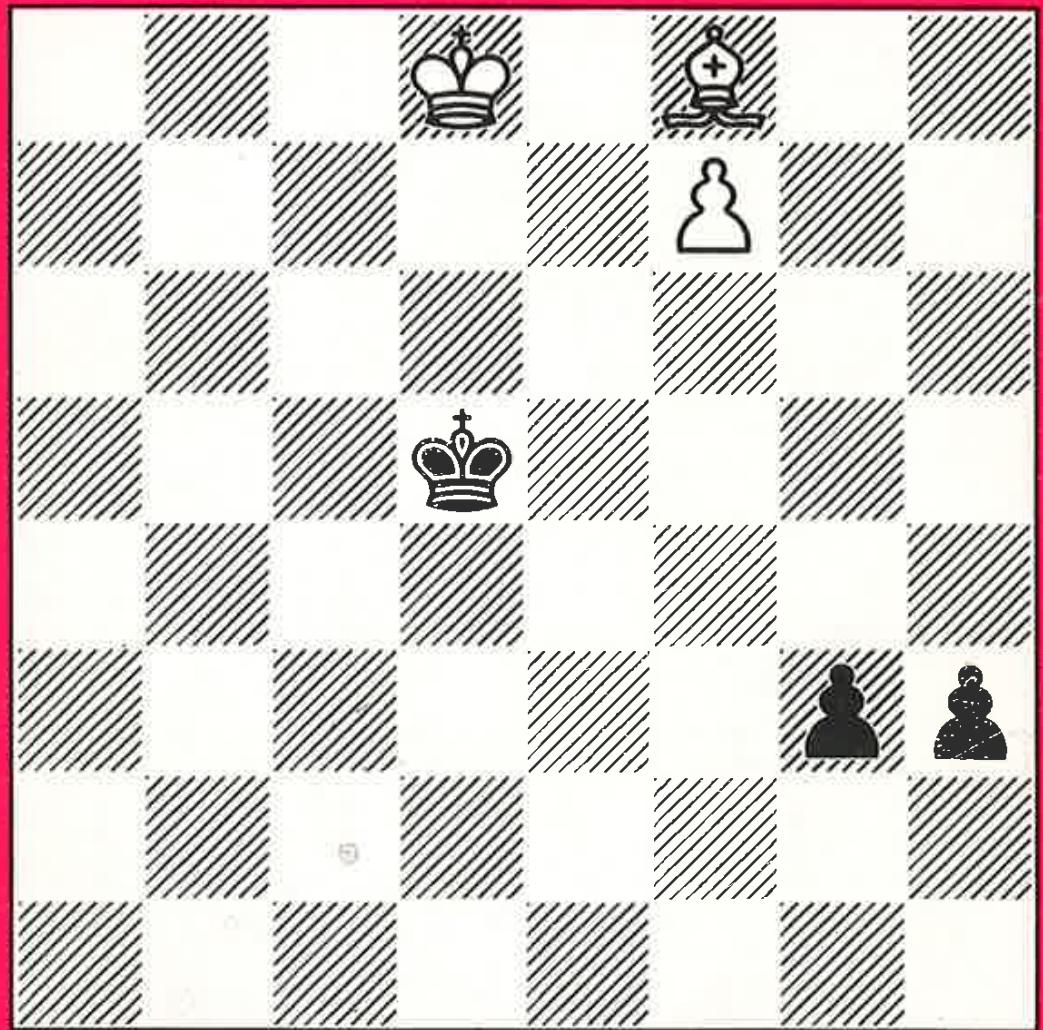# *Search*

T H E   C O M P U T E R   C H E S S   M A G A Z I N E

Find White's winning line in under five seconds...
(congratulations - you're faster than the Genius 68030)

£2.00

Contents

*Solution to front cover diagram: see inside back cover

News

Saitek and Mephisto

The big event since last issue has to be Saitek's purchase of a majority shareholding in Hegener and Glaser, the German company who make Mephisto - it even made it into the financial columns of some of the daily papers.

Unless there is any reader out there with a financial interest in either company, the only matter likely to be of concern is how this development will affect the range and pricing of chess computers in the future. Only time will tell of course, but paradoxically, the upshot may well be good for the customer on both these counts. Saitek will now have a huge share of the world market, and with that will come the resources needed for a major programme of research and development - the lifeblood of the chess computer market.

When two car companies merge, the usual result is that the most successful models from both ranges are kept while the rest go to the wall, and it is reasonable to assume that Saitek will adopt a similar policy.

On the subject of pricing, there will probably be even less to fear. Saitek's new far-Eastern manufacturing plant is on a scale the industry has not seen before, and the result of serious investment sums.

This has the joint effect of making highly competitive pricing both achievable on the one hand, and necessary on the other. Anyone who fears that Saitek will use their near-monopoly to jack up prices need look no further than their new President model - wood, strong, and under £300 - an excellent buy, previewed in this issue. Then again, Saitek/Mephisto will still have to contend with competition from Novag and Tasc.

Countrywide Computers has been selling Saiteks for many years of course, as well as being sole distributors for Mephisto in the UK and the Republic of Ireland. Soon, however, Countrywide are likely to be extending their range as a result of the coming together.

Risc 2500

We hear that the ill-fated project to produce the 512k upgrade for the Saitek 2500 has been put on ice.

Despite a lot of work, it has proved impossible to integrate it successfully into the machine with sufficient reliability. This will undoubtedly come as rather a blow for many 2500 purchasers, and whether this model joins the massed ranks of computers described as upgradeable, but with no upgrade ever appearing, remains to be seen. At least they tried though...

New Berlin

The new Mephisto Berlin, called Berlin Professional, is officially out now, but will be in extremely short (or non-existent?) supply for a little while, so if you want one, we suggest you join the waiting list as soon as possible.

The new model boasts all the virtues of the original, but with a 68020 processor (24Mhz) instead of a 68000, and the program replaced with the Chess Genius program (not that from Mephisto Genius 2), so strength should be around the 215 BCF mark. Price is £549; exactly the same as the 2500 with upgrade would have been.

ICC Computer Match

The Insurance Chess Club, based at Bishopsgate in the City of London, is 100 years old. As part of their centenary celebrations, they organised a human v computer contest. The report below is an edited version of the article which appeared in ChessIns, the ICC bulletin, written by its editor **Ian Hunnable,** *to whom our thanks.*

When the Insurance Chess Club was founded in 1893, *Mephisto* was the name of a chess-playing automaton. The engineering to create the illusion of a machine playing chess was undoubtedly ingenious, but illusion it was, the actual play being provided by a chess master in another room.

In 1993, *Mephisto* is the name of a range of sophisticated chess-playing computers - no trickery involved now, just electronic wizardry. Chess-playing computers have, of course, been with us for over a decade and we now take them for granted. But one can only speculate on what our forbears would have made of them, if only we could conquer that last barrier of science, time travel, and introduce the one to the other.

As a means of marking this technological advancement, we arranged, as a centenary event, a match against a team of chess computers at Bishopsgate.

A cross-section of the machines owned by club members looked like respectable opposition, but the event was enhanced by the loan of two leading edge computers. The first of these was the Tasc R30 a real beast of a program sporting a grade of BCF 229 - IM territory! This machine has a superb full-size polished wood board with slightly stylised, but eminently playable, Staunton pattern pieces, so the game was played on the computer's board.

The other guest machine was a Mephisto, topically styled Nigel Short, which at that time had only been on the market a couple of weeks.

The remainder of the computer team was supplied by ICC members and comprised a Mephisto Polgar, a Mephisto Mondial 68000XL and two older machines, a Novag Super Expert and a Fidelity Par Excellence.

During the setting-up phase the computer side suffered a team selection problem, when their original board 4, a Mephisto Modena, had to be substituted as it couldn't handle the chosen rate of play of all moves in 90 minutes. We could have selected the most suitable of its standard rates of play, but since we had the Mondial on hand, which could be set to the appropriate blitz rate, it elbowed its way into the team and everything was set.

The club won the toss and chose white on odd boards - at least Ben Rickayzen would have the only assistance we could give him in his thankless task!

The first ten or fifteen minutes were a little hectic; while still in their opening books the computers reply instantly, so the operators were buzzing around like bluebottles. But soon things settled down into a more steady pattern.

At the early middlegame stage, Tasc R30 was comfortable, even if its opponent wasn't; Nigel Short appeared to be doing well; Tony Paish had chosen, perhaps unwisely, to mount an all-out assault against Polgar. The Mondial couldn't decide where to put its rooks, oscillating between d1 and e1 and this indecision soon spread

to its opponent! The computer then had a complete aberration and in this position...

when Derek Harris (Black), with typical tenacity, managed to force a pawn to the seventh rank and force a draw:
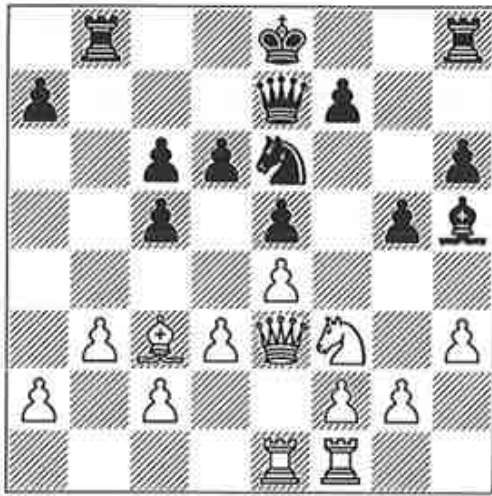
played **18 ♘xe5?!** giving up two minor pieces for a rook and two pawns: **18 dxe5 19 ♗xe5 0-0 20 ♗xb8 ♖xb8.**

Perhaps it over-assessed its compensation due to the black queenside pawn structure, but the principal defect in White's game is that there are no open lines for its rooks!

After **21 ♕g3 ♘f4** it was well and truly hemmed in.

The Novag, having essayed Chigorin's defence, had got nothing out of the opening. Meanwhile, the Par Excellence was trying to put Chris Tilson to sleep with a Giuoco Pianissimo.

The first result was recorded after some 2½ hours play, when the R30 completed a faultless, if unspectacular, performance which rather nonplussed our man and secured the computers' first point. Derek Harris had sac'd a piece for a pawn and the attack against Nigel. The attack hardly materialised and Nigel appeared well on the way to what must seem a rare result these days - a win! However, it must have felt it was back on territory familiar to its namesake

31 f4 ♕e7 32 ♘f2 e4 33 ♘xh3 ♗xh3 34 ♕xh3 e3 35 ♕f5 e2 36 ♕a5+ ♔d7 37 ♕e1 ♕e4+ 38 ♔g1 ♕e3+ 39 ♔g2 c5 40 ♗c2 ♔e6 41 h4 ♔f7 42 h5 ♔g7 43 b3 ♔h6 44 ♗g6 a6 45 f5 ♔g5 46 h6 ♔g4 47 h7 ♕f3+ 48 ♔h2 ♕h3+ 49 ♔g1 ♕e3+ 50 ♔g2 ♕f3+ 51 ♔h2 ♕h3+ ½-½. *

Polgar exhibited some nimble footwork in defence and a well-aimed counter-blow collapsed the white position. This game is given in full below. Paul Barclay went astray in a promising ending and in a moment's carelessness allowed Novag to trap a bishop.

On board 6, things had reached an impasse and Chris Tilson, with only one

ICC		COMPUTERS
B D Rickayzen 188	0-1	R30 229
D J E Harris 167	½-½	Nigel Short 192
A G C Paish 159	0-1	Polgar 179
M J Reddie 164	1-0	68000XL 178
P R Barclay 141	0-1	Super Expert 168
C Tilson 113	½-½	Par Excellence 158
	2-4	

minute left on his clock, was happy to accept a repetition of position to force a draw. Meanwhile the Mondial was the only machine actually in trouble in what was the last game to finish. It was now a full rook down, but obliged Mick Reddie to chase it up and down the board before perishing back on f1.

So a win to the computers by 4-2, which might have been closer but for the disaster on board 5; otherwise largely the expected result.

□ **AGC Paish**
■ **Mephisto Polgar**

1 e4 c6 2 f4 !?

Someone remarked before play that it always helps to depart from the book as early as possible against computers. Is this early enough?

2...d5 3 e5 ♗f5 4 d4 e6 5 ♗d3 ♗xd3 6 ♕xd3 ♘d7 7 ♘e2 c5 8 c3 ♖c8 9 ♘d2 cxd4 10 cxd4 ♘e7 11 ♘f3 ♘f5 12 ♗d2 ♗e7 13 0-0 0-0

14 g4!?

Is this advisable? It is still a truism that computers are better in tactical situations than strategic ones, so this might not be a wise choice of plan.

14... ♘h6 15 h3 ♕b6 16 f5

Mind you, the attack does look fierce.

16... exf5 17 ♗xh6?

17 gxf5 was a better bet, with the threat 18 f6.

17... fxg4!

The computer inserts a zwischenzug to simplify the kingside before recapturing.

18 hxg4 ♕xh6 19 ♕f5 ♕e3+ 20 ♖f2 ♘b6 21 ♖e1 g6 22 ♕f4 ♕xf4 23 ♘xf4 ♖c6 24 g5 ♖fc8 25 ♖ee2 ♔g7 26 ♔g2 ♖c1 27 ♔g3 ♖a1 28 a3 ♖ac1 29 ♖h2 a6

A waiting move? There's no discernible purpose behind it - Black has no plan!

30 e6

...but this ought to concentrate its mind!

30...♖f8 31 ♔g4 ♗d6 32 ♘e5 ♖g1+ 33 ♔h4
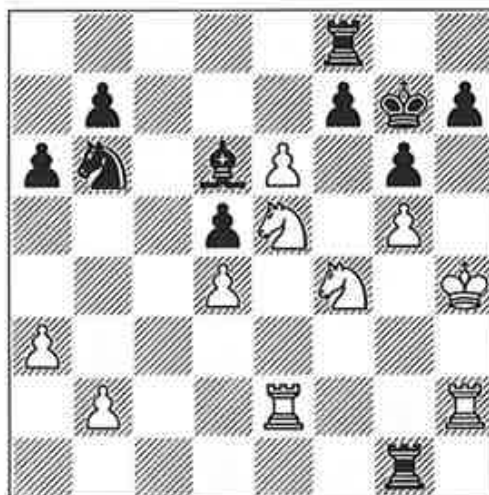
33...f6!

The move of the match. Black has no qualms about turning the e6 pawn into a passed pawn. A little inspection reveals the white position is overloaded. If 34 ♘ed3 fxg5 wins a piece. White tries the only alternative.

34 gxf6+ ♖xf6 35 ♘h3

The last chance passes - 35 ♘g2 would allow White to play on.

35...g5+

White resigned, as it is mate next move.

GM Murray Chandler, reading this article, noticed that 49...♕g3+! 50 ♕xg3+ ♔xg3 51 h8♕ e1♕ wins for Black.

Games Collection

Seven games and notes from Frank Holt (Risc 1Mb v R30), followed by a series between the Tasc R30 and the Vancouver 68030

□ **Mephisto Risc 1Mb**
■ **Tasc R30 (normal style)**
QGA. (all moves 60 minutes each)

1 d4 d5 2 ♘f3 ♘f6 3 c4 dxc4 4 e3 e6 5 ♗xc4 c5 6 0-0 a6 7 a4 ♘c6 8 ♕e2 ♕c7 9 ♘c3 ♗d6 10 ♖d1 0-0 11 h3 e5 12 dxe5 ♘xe5 13 ♘xe5 ♗xe5 14 ♘d5 ♘xd5 15 ♗xd5 ♗e6

The Risc left book here; the R30 did so on the move before.

16 ♗xe6 fxe6 17 f4 ♗f6 18 e4 ♗d4+ 19 ♔h1 e5 20 f5 c4 21 ♗g5 b5 22 ♖ac1 ♕b6 23 axb5 axb5 24 ♗e7 ?!

Forcing the rook to a better square.

♖fc8 25 ♖a1 ♖xa1 26 ♖xa1 c3 27 bxc3 ♗xc3
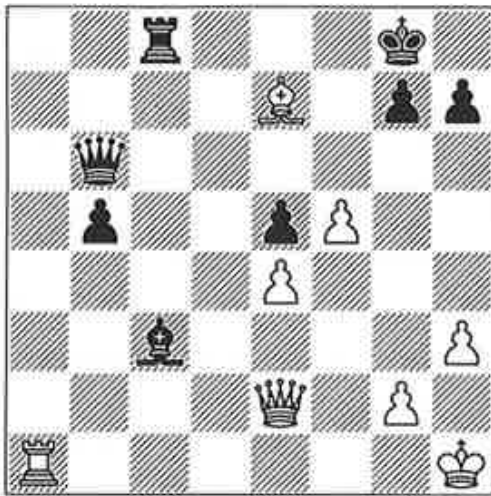
28 ♕a2+

Here 28 ♖af1 would be a winning move. The Risc has played well, but makes rather heavy weather of a clearly better position.

♔h8 29 ♖b1 ♕b7 30 f6 ♕xe4

The Risc gives itself a modest plus of 0.78; the R30 has a gloomy but more realistic minus 3.73.

31 ♖f1 ♕c4 32 ♕xc4 bxc4 33 f7 h5 34 ♖c1 ♗d4 35 ♖xc4 ♖xc4 36 f8♕+ ♔h7 37 ♕f5+ ♔h8 38 ♕xh5+ ♔g8

The game actually continued to move 65, but for our purposes...
1-0.

□ **Tasc R30 (offensive style)**
■ **Mephisto Risc 1Mb**
Slav. (40 moves in two hours each)

1 d4 c6 2 c4 d5 3 ♘f3 ♘f6 4 ♘c3 dxc4 5 a4 ♗f5 6 e3 e6 7 ♗xc4 ♗b4 8 0-0 0-0 9 ♘h4 ♗g4 10 f3 ♗h5 11 g4 ♗g6 12 e4 ♘bd7 13 g5 ♘e8 14 ♘xg6 hxg6 15 ♗e3 ♘c7 16 ♕d2 e5

1Mb leaves book here.

17 f4

R30 does likewise.

17...exd4 18 ♗xd4 ♘c5 19 ♖ad1 ♘7e6
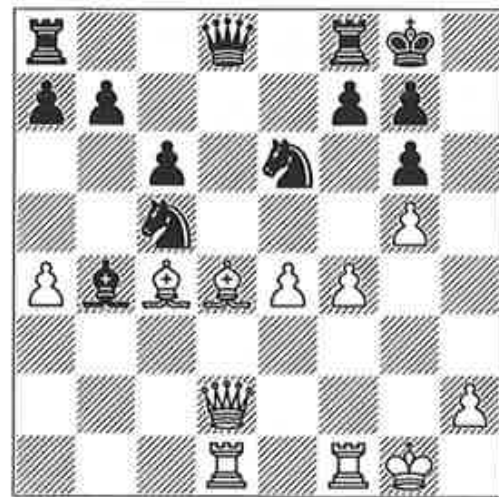
The habitual optimism of the R30's offensive setting shows in its +1.89 lead here; the Risc is of course more objective, with only a fractional minus of 0.10.

20 ♕e3 ♕a5 21 ♗e5 ♖fe8 22 f5 gxf5 23 g6 fxg6

Both think they are ahead here; +3.81 (R30), +0.49 (1Mb, expecting 24 ♖d6).

24 exf5 gxf5 25 ♕g5 ♔h7 26 ♕xf5+

With a mate in 6 announcement;
26...♔h8 27 ♕h5+ ♔g8 28 ♗xg7 ♔xg7
29 ♖f7+ ♔g8 30 ♕h7+.
1-0.

□ **Mephisto Risc 1Mb**
■ **Tasc R30 (normal style)**
Slav. (40 moves in two hours each)

**1 d4 c6 2 c4 d5 3 ♘f3 ♘f6 4 ♘c3 dxc4 5
a4 ♗f5 6 e3 e6 7 ♗xc4 ♗b4 8 0-0 0-0 9
♘h4 ♗g4 10 f3 ♗h5 11 g4 ♗g6 12 ♘xg6
hxg6 13 e4 c5 14 ♘a2 ♕a5 15 ♘xb4
♕xb4 16 b3 ♖d8 17 ♗d2 ♕b6**

Both out of book at this stage, with the
Risc showing +.24 and the R30 a deficit of
-0.58.

**18 g5 ♘e8 19 d5 exd5 20 exd5 ♘d6 21 a5
♕c7 22 ♗f4 ♖e8 23 ♖e1 ♘a6 24 ♗xa6
bxa6 25 ♕d2 ♕d7 26 ♖ad1 ♖xe1+ 27
♖xe1 ♘f5 28 ♗e3 ♖d8**
**29 ♗xc5 ♘h4 30 ♕d3 ♕h3 31 ♖e2
♘xf3+ 32 ♔f2 ♘xg5 33 ♕xh3 ♘xh3+ 34
♔g3**

34...♖xd5

The R30 took 19 minutes on this move
and looked at around 8 million positions.
This is a critical stage in the game.
35 ♖e8+ ♔h7 36 ♗e3 ♘g5

The Risc has itself down by 0.62, while
the R30, on its 'unbiased' normal setting,
considers itself the equivalent of 1.24

pawns up.
**37 b4 ♘e6 38 ♖e7 ♖e5 39 ♗xa7 ♖g5+ 40
♔h4 ♖f5 41 ♗b6 ♖f3 42 ♔g4 ♖f4+ 43
♔g3 g5 44 ♔g2 ♖g4+ 45 ♔f3 ♖xb4 46
♖xf7 ♖f4+ 47 ♖xf4 gxf4 48 ♔e4 ♔g6 49
h4 ♔f6 50 ♗f2 g5 51 hxg5+ ♔xg5 52
♔d5 ♔f5 53 ♔c6 ♔e4 54 ♔b7 ♔d5 55
♔xa6 ♔c6 56 ♔a7 f3 57 ♗e3 ♔b5 58
♔b7 ♘c5+ 59 ♔c7 ♘e4 60 a6 ♔xa6**

Patently drawn and with both evalu-
ations at or around even, so adjudicated
as:
½-½.

□ **Tasc R30**
■ **Mephisto Risc 1Mb**
Slav. (all moves in 90 minutes each)

**1 d4 c6 2 c4 d5 3 ♘f3 ♘f6 4 ♘c3 dxc4 5
a4 ♗g4 6 ♘e5 ♗h5 7 f3 ♘fd7 8 ♘xc4 e5
9 e4 exd4 10 ♕xd4 ♘a6 11 ♘d6+ ♗xd6
12 ♕xd6 ♘ac5 13 ♗e3 ♕b6 14 ♘d1
♕b4+ 15 ♗d2 ♕b3**

The R30 often seems to play with one
wing weaker than the other.
**16 ♗e2 ♖d8 17 ♗a5 ♖c8 18 ♗c3 ♕e6 19
♕d4 f6 20 ♖a3 a6 21 ♘e3 ♕e5 22 ♕d1
♕g5**

Black leaving it a bit late to castle? The
R30 gives itself a plus of 1.57 here; the
Risc has a corresponding shortfall, but
only of minus 0.61.
23 ♘f5 ♖d8

24 ♕d6!! ♕xf5 25 exf5 b6

All this seemed to happen suddenly, after 24 ♕d6. With the R30 8.38 up and the 1Mb 7.86 down, I started to wonder if I had the position wrong, but no!

26 ♗xf6 ♘xf6 27 ♖e3+ ♘fe4 28 ♕xc6+ ♖d7

The Risc's hopeful hint here was 29 ♖xe4? You'll be lucky, I thought...

29 b4! 0-0 30 ♖xe4 ♗e8 31 ♖xe8 ♖xe8 32 ♔f2 ♖ed8 33 bxc5 bxc5 34 ♗c4+ ♔h8 35 ♖e1 Resigns

1-0.

□ **Mephisto Risc 1Mb**
■ **Tasc R30 (active)**
London System (all moves in 1hr each)

---

1 d4 ♘f6 2 ♘f3 d5 3 ♗f4 c5 4 e3 ♕b6 5 ♕c1 ♗f5 6 c3 e6 7 a4 ♘c6 8 ♗b5 ♘h5 9 ♗g5 f6 10 ♗h4 g5 11 dxc5 ♗xc5 12 ♗g3 ♘xg3 13 hxg3 0-0?!

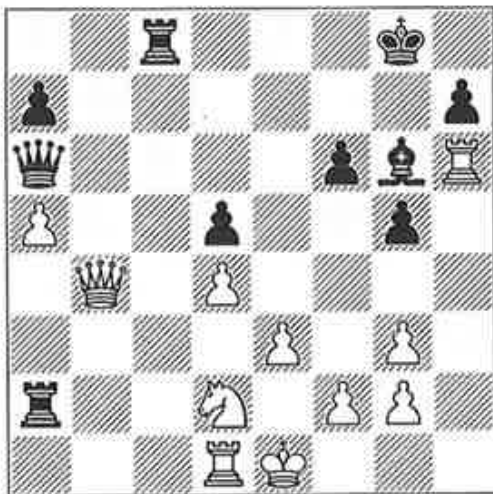This seems a very funny move to me, with the rook bearing down on a clear h-file.

14 b4 ♗d6 15 ♗xc6 bxc6 16 ♘d4 ♗g6 17 a5 ♕a6

Now there's a free pawn to be had.

18 ♘xe6 ♖fe8 19 ♘d4 c5 20 bxc5 ♗xc5 21 ♘d2 ♗xd4 22 cxd4 ♖ac8

Risc +0.24, R30 +0.96 although one pawn down.

23 ♕b2 ♖c2 24 ♕b4 ♖ec8 25 ♖d1 ♖a2 26 ♖h6

26...♗d3

The R30 was looking at 26 ♗c2 and only +0.26, but then went back to +2.14 and the move chosen. I have noticed before how it looks at a best move with a low evaluation, change its mind, and then return to its original choice but with a higher evaluation.

27 ♖h1 ♗e2 28 ♕e7 h5

The Risc regards the position with a bad but tenable minus 2.12, but the R30, I am happy to say, showed +4.43.

29 ♖b1 ♗g4

With this, the R30 calls mate in 7, and the Risc also realises the game is up and resigns. The finish would have been 30 f3 ♕d3 31 ♕b4 ♕xe3+ 32 ♔f1 ♗f5 33 ♕b3 ♗d3+ 34 ♕xd3 ♕xd3+ 35 ♔g1 ♕xd2 36 ♖b2 ♖xb2 37 ♖h2 ♖b1mate. The R30 has not lost a game when set to 'active' style!

0-1.

□ **Mephisto Risc 1Mb**
■ **Tasc R30 (solid)**
Sicilian Maroczy Bind (all in 90m. each)

---

1 e4 c5 2 ♘f3 ♘c6 3 d4 cxd4 4 ♘xd4 g6 5 c4 ♗g7 6 ♗e3 ♘f6 7 ♘c3 ♘g4 8 ♕xg4 ♘xd4 9 ♕d1 ♘e6 10 ♖c1 ♕a5 11 ♕d2 d6 12 ♗d3 ♘c5

Both computers left book at this point, with the Risc showing +0.23 and the R30 minus 0.43.

13 0-0 0-0 14 ♖fd1 ♖e8 15 ♗b1 ♗g4 16 ♘b5 ♕xd2 17 ♖xd2 ♖ec8 18 b4 ♘a6 19 ♘xa7 ♖d8 20 a3 ♘c7 21 f4 ♗h6

Move 21 has the Risc on +1.06 with a hint of 21...♖e8 while the R30 gives minus 0.80 expecting 22 ♖f1.
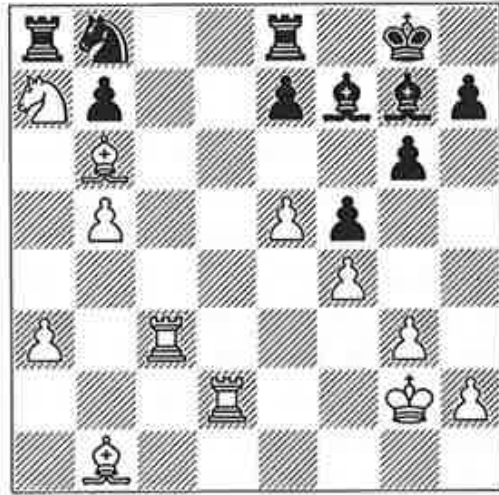
22 g3 ♗g7 23 ♔g2 ♗e6 24 ♗b6 ♖e8 25 c5 dxc5

The crux of the game; White now has the d-file. Risc +2.23, R30 minus 1.32.

26 ♖xc5 ♘a6 27 ♖c1 ♗b3 28 b5 ♘b8 29 e5 f5

Forced, or else ♗e4 trapping the black rook.

30 ♖c3 ♗f7

Both have White up by about 2.70. On solid I would have expected the R30' to have clawed its way back into the game, since solid moves nothing silly - but it's losing at the moment.

31 Rc7 Be6 32 Rxb7 Bb3 33 Bc2 Bxc2 34 Rxc2 Kf7 35 Rcc7 Bf8 36 Bc5 h6

This is the only problem when 'solid' means 'sit and do nothing'. The Risc has other ideas - like breaching the defences.

37 Bb4 Kg7

An open invitation to declare war.

38 a4 Kg8 39 a5 g5

Both waiting for each other. g5 is a mistake, and now the Risc can take full advantage of the situation.

40 Bxe7 Bxe7 41 Rxe7 Rxe7 42 Rxe7 gxf4 43 gxf4 Kf8 44 Rh7 h5 45 e6 Kg8 46 Rc7 Resigns

1-0.

□ **Mephisto Risc 1Mb**
■ **Tasc R30 (Normal)**
Caro Kann

---

1 e4 c6 2 d4 d5 3 Nc3 dxe4 4 Nxe4 Bf5 5 Ng3 Bg6 6 h4 h6 7 h5 Bh7 8 Nf3 Nd7 9 Bd3 Bxd3 10 Wxd3 Wc7 11 Bd2 Ngf6 12 c4 e6
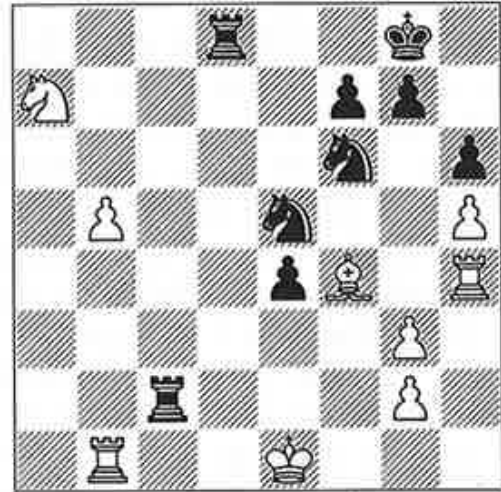
Again, both machines leave book together, the Risc with a plus of 0.18, the R30 with a deficit of 0.30.

13 We3 Be7 14 Rc1 0-0 15 b4 Rfd8 16 a3 Bd6 17 Ne2 b6 18 Rh4 c5 19 dxc5 bxc5

20 Rd1 Rab8 21 Rb1 cxb4 22 axb4 e5 23 Ng3 e4 24 Nd4 Bxg3

Risc: minus 0.59; R30: +1.26.

25 Wxg3 Wxg3 26 fxg3 Rbc8 27 Nb5 Rxc4 28 Nxa7 Ne5 29 b5 Rc2 30 Bf4

30...Nd3+

The R30 is on its way...

31 Kf1 Nxf4 32 gxf4 Rdd2 33 g3 Rg2

The Risc thought it was only 1.41 down, but the R30 calls mate in 9.

34 Rc1 Rcf2+ 35 Ke1 Ng4

Only now does the 1Mb resign. The continuation would have been 36 Rc8+ Kh7 37 Rxg4 e3 38 Rxg7+ Kxg7 39 Rg8+ Kxg8 40 b6 Rg1+.

0-1.

We have also been kindly provided with still more high-end games, this time between the Vancouver 68030 (a multi-thousand pound machine in its day) and the R30. Comparing the result obtained from these 11 games (7½-3½ to the Tasc) with the result obtained by the Genius 030 gives an indication of just how much the Genius module has improved on its predecessor.

Although presented in bulletin format, the quality of these games ranges from good to excellent, and even the longest of them is well worth playing through - if you have the time!

Tasc R30 (active)
Mephisto Vancouver 68030
Slav. 40 in 2½ hours each

1 d4 d5 2 c4 c6 3 ♘f3 ♘f6 4 ♘c3 dxc4 5 a4 ♗g4 6 ♘e5 ♗h5 7 f3 ♘fd7 8 ♘xc4 e5 9 e4 ♕h4+ 10 g3 ♕f6 11 dxe5 ♕xf3 12 ♘d6+ ♗xd6 13 ♕xd6 ♕xh1 14 ♗g5 f6 15 exf6 ♘xf6 16 ♕e6+ ♔f8 17 ♗xf6 gxf6 18 ♕xf6+ ♔g8 19 ♕g5+ ♗g6 20 0-0-0 ♕f3 21 ♕e7 ♘a6 22 ♗c4+ ♗f7 23 ♖d7 ♔g7 24 ♕g5+ ♔f8 25 ♖xb7 ♖b8 26 ♕h6+ ♔g8 27 ♖xf7 ♕xf7 28 ♗xf7+ ♔xf7 29 e5 ♖hc8 30 ♘e4 ♔g8 31 ♘f6+ ♔f7 32 ♘xh7 ♖c7 33 e6+ ♔e7 34 ♕f6+ ♔d6 35 e7+ ♔c5 36 ♕e5+ ♔b6 37 a5+ ♔b7 38 ♘f6 ♘b4 39 ♕d6 c5 40 ♘d5 ♖xe7 41 ♕xe7+ ♔c6 42 ♕e6+ ♔b5 43 ♕d7+ ♔xa5 44 ♕xa7+ ♘a6 45 ♘c7 ♖b6 46 b3 c4 47 b4+ ♔a4 48 ♕xb6 ♔b3 49 ♘xa6 c3 50 ♕e6+ ♔a4 51 ♕c4 ♔a3 52 ♘c5 c2 53 ♕b3+ 1-0.

Vancouver 68030
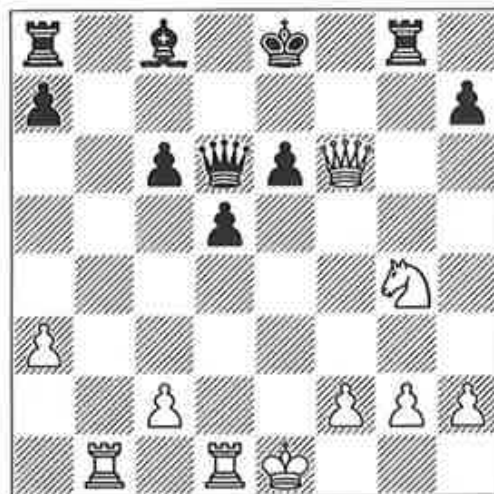**Tasc R30 (active)**
Sicilian c3. 40 in 2½ hours each

1 e4 c5 2 c3 e6 3 d4 d5 4 exd5 exd5 5 ♘f3 ♘c6 6 ♗b5 ♗d6 7 0-0 ♘ge7 8 dxc5 ♗xc5 9 ♘bd2 0-0 10 ♘b3 ♗d6 11 ♘fd4 a6 12 ♗d3 ♘e5 13 ♗c2 ♗g4 14 f3 ♗d7 15 ♗f4 ♕c7 16 ♖e1 ♘7g6 17 ♗g3 ♘c4 18 ♗xd6 ♕xd6 19 ♕e2 ♖fe8 20 ♕f2 ♘f4 21 ♖ab1 g6 22 ♔h1 ♖xe1+ 23 ♕xe1 ♖e8 24 ♕f2 ♕e7 25 h3 ♘e3 26 ♖g1 ♕d6 27 ♕g3 ♘xc2 28 ♘xc2 ♖e2 29 ♘bd4 ♖d2 30 ♕h4 ♗a4 31 b3 ♗b5 32 ♕h6 ♘h5! 33 ♖e1 ♖xg2 34 ♔xg2 ♕g3+ 35 ♔h1 ♕xh3+ 36 ♔g1 ♕g3+ 37 ♔h1 ♕f2 38 ♘f5 ♕xf3+ 39 ♔g1 ♕g4+ 40 ♔h2 ♕xf5 41 ♕d2 ♘f4 42 ♖e3 ♕h5+ 43 ♔g1 ♘e2+ 44 ♖xe2 ♗xe2 45 ♘d4 ♗f3 46 ♘xf3 ♕xf3 47 ♔h2 b5 0-1.

Mephisto Vancouver 68030
Tasc R30
Caro Kann. 40 in 2½ hours each

1 e4 c6 2 ♘c3 d5 3 ♘f3 ♗g4 4 h3 ♗xf3 5 ♕xf3 e6 6 d3 ♘f6 7 ♗e2 d4 8 ♘d1 ♗d6 9 c3 e5 10 0-0 ♘bd7 11 ♕g3 ♕e7 12 ♕xg7? ♖g8 13 ♕h6 ♖g6 14 ♕h4 0-0-0 15 cxd4 ♖dg8 16 g3 exd4 17 ♗f4 ♗xf4 18 ♕xf4 ♕e6 19 ♔g2 ♖g5 20 a3 ♘h5 21 ♕h4 ♕h6 22 ♖h1 ♘e5 23 ♗g4+ ♔b8 24 ♗xh5 ♖xh5 25 ♕e7 ♕f4 26 ♕d6+ ♔c8 27 ♕f8+ ♖xf8 28 gxf4 ♘xd3 29 f5 ♖h4 30 f3 ♖g8+ 31 ♔f1 ♖g3 32 ♔e2 ♘f4+ 33 ♔f2 ♖g2+ 34 ♔f1 ♖c2 35 a4 ♘d3 36 ♖a3 ♖d2 37 ♖xd3 ♖xd3 38 ♔g2 ♖f4 39 ♖f1 h5 40 b4 ♖b3 41 ♖f2 ♔c7 42 a5 b6 43 axb6+ axb6 44 ♖d2 ♖fxf3 45 ♖xd4 ♖xh3 46 e5 ♖hg3+ 47 ♔h2 ♖g4 48 ♖xg4 hxg4 49 ♔g2 g3 50 ♔h3 ♔d7 51 b5 c5 52 ♔g2 ♖d3 53 ♘b2 ♖d2+ 54 ♔xg3 ♖xb2 0-1.

Tasc R30 (active)
Mephisto Vancouver 68030
French. 40 in 2½ hours each

1 e4 e6 2 d4 d5 3 ♘c3 ♗b4 4 e5 c5 5 a3 ♗xc3+ 6 bxc3 ♕c7 7 ♕g4 f6 8 ♗b5+ ♔f8 9 ♘f3 ♕a5 10 ♖b1 ♕xc3+ 11 ♔d1 ♘c6 12 ♗b2 ♕a5 13 ♗xc6 bxc6 14 exf6 ♘xf6 15 ♕f4 ♔e7 16 dxc5 ♕xc5 17 ♕g5 ♔f7 18 ♘e5+ ♔f8 19 ♘g4 ♖g8 20 ♗xf6 gxf6 21 ♕xf6+ ♔e8 22 ♖e1 ♕d6

23 ♖b7! ♖f8 24 ♕h6 ♖f4 25 ♘f6+ ♖xf6 26 ♕xf6 ♗xb7 27 ♖xe6+ ♕xe6 28 ♕xe6+ ♔d8 29 ♕f7 ♗c8 30 ♕xh7 a6 31 h4 1-0.

Tasc R30 (active)
Mephisto Vancouver 68030
Petroff. 40 in 2½ hours each

1 e4 e5 2 ♘f3 ♘f6 3 ♘xe5 d6 4 ♘f3 ♘xe4
5 d4 d5 6 ♗d3 ♗d6 7 0-0 0-0 8 c4 c6 9
♘c3 ♘xc3 10 bxc3 dxc4 11 ♗xc4 ♗g4
12 h3 ♗h5 13 ♖e1 ♘d7 14 ♗d3 ♕a5 15
♕c2 ♗xf3 16 ♗xh7+ ♔h8 17 ♗f5 ♗xg2
18 ♔xg2 ♘b6 19 ♖e4 ♕d5 20 f3 ♖fe8 21
♖h4+ ♔g8 22 ♖b1 ♖ad8 23 ♖h5 ♕c4 24
♗h7+ ♔f8 25 ♗d3 ♕e6 26 ♖h8+ ♔e7 27
♗g5+ f6 28 ♗f5 ♖xh8 29 ♗xe6 ♔xe6 30
♕g6 ♔d7 31 ♕xg7+ ♗e7 32 ♖e1 ♘c8 33
♖xe7+ ♘xe7 34 ♕xf6 ♖de8 35 ♕e5
♖hg8 36 ♔f2 ♖g6 37 ♗f6 ♖gg8 38 h4
♘d5 39 ♕f5+ ♔c7 40 ♗e5+ ♔b6 41
♕b1+ ♔a6 42 c4 ♘e7 43 h5 b5 44 cxb5+
cxb5 45 h6 ♖gf8 46 ♕b3 ♘c8 47 ♗g7
♖f5 48 ♕c2 ♘e7 49 ♕c7 ♖d5 50 ♗f6
♖dd8 51 ♗xe7 ♖c8 1-0.

Mephisto Vancouver 68030
Tasc R30 (active)
Caro Kann. 40 in 2½ hours each

1 e4 c6 2 ♘f3 d5 3 ♘c3 ♗g4 4 h3 ♗xf3 5
♕xf3 e6 6 d3 ♘f6 7 g3 d4 8 ♘e2 ♘bd7 9
♗f4 ♕b6 10 0-0-0 e5 11 ♗g5 h6 12 ♗xf6
♘xf6 13 ♕f5 ♗d6 14 f4 ♘d7 15 ♗g2 g6
16 ♕g4 ♖d8 17 ♖hf1 0-0 18 ♕h4 ♔g7 19
fxe5 ♗xe5 20 g4 ♖fe8 21 g5 hxg5 22
♕xg5 c5 23 b3 ♖h8 24 ♖f2 ♖h5 25 ♕d2
♘f6 26 ♘f4 ♖hh8 27 ♖df1 ♔g8 28 ♘d5
♘xd5 29 exd5 f6 30 ♕d1 f5 31 ♕f3 ♕d6
32 ♔b1 ♖h4 33 ♕d1 ♗f4 34 ♖e2 ♗e3 35
♖h1 ♖e8 36 ♕e1 ♖h7 37 ♗f3 b6 38 ♖g2
♔f7 39 ♕f1 ♖hh8 40 h4 ♔g7 41 ♖e2 ♕e5
42 ♕g2 ♕f4 43 ♖h3 ♖d8 44 ♖g3 ♖h6 45
h5 g5 46 ♖e1 ♖f6 47 ♖xe3 ♕xe3 48
♖xg5+ ♔h8 49 a3 ♕e1+ 50 ♔b2 ♕c3+
51 ♔a2 b5 52 ♕e2 c4 53 dxc4 bxc4 54
♕xc4 ♖c8 55 ♕xc3 ♖xc3 56 ♗d1 ♖c5 57
♖g3 ♖xd5 58 ♖d3 ♖dd6 59 b4 ♖fe6 60
♔b3 ♔g7 61 ♔c4 ♔f6 62 b5 ♖e4 63 ♗f3
♖e3 64 a4 ♔e5 65 a5 ♖e1 66 ♖d1 ♖xd1
67 ♗xd1 ♔e4 68 ♔c5 ♖d8 69 b6 axb6+

70 axb6 f4 71 b7 f3 72 ♔b6 f2 73 ♗e2
♖h8 74 ♔a7 ♔e3 75 ♗d3 ♔f4 76 h6 ♔g5
77 h7 ♖xh7 78 ♗xh7 f1♕ 79 b8♕ ♕f7+
80 ♕b7 ♕f6 81 ♕d5+ ♔f4 82 ♕e4+ ♔g5
83 ♔b7 d3? 84 ♕g2+ ♔h4 85 ♗xd3
♕e7+ 86 ♔c6 ♕e6+ 87 ♔c5 ♕e7+ 88
♔d4 ♕a7+ 89 ♔c3 ♕a5+ 90 ♔b3 ♕b6+
91 ♔c4 ♕c7+ 92 ♔b4 ♕d6+ 93 ♔c3
♕f6+ 94 ♔d2 ♕b2 95 ♕h2+ ♔g4 96
♗e2+ 1-0.

Tasc R30 (active)
Mephisto Vancouver 68030/7
Chigorin. 40 in 2½ hours each

1 d4 d5 2 c4 ♘f6 3 ♘f3 dxc4 4 e3 e6 5
♗xc4 c5 6 0-0 a6 7 dxc5 ♕xd1 8 ♖xd1
♗xc5 9 a3 0-0 10 b4 ♗e7 11 ♗b2 b5 12
♗b3 ♗b7 13 ♘c3 ♘bd7 14 ♖ac1 ♗xf3
15 gxf3 ♘e5 16 f4 ♘f3+ 17 ♔g2 ♘h4+
18 ♔h3 ♘g6 19 f5 exf5 20 ♘d5 ♘xd5 21
♖xd5 f4 22 e4 ♖fd8 23 ♖c7 ♔f8 24 ♔g4
f6 25 f3 ♖ac8 26 ♖xc8 ♖xc8 27 ♖h5 ♗d6
28 ♖xh7 ♗e5 29 ♔h5 ♗xb2 30 ♔xg6
♖c3 31 ♗e6 ♖xf3 32 ♖xg7 ♖f2 33 ♖g8+
♔e7 34 ♔f5 ♗xa3 35 ♖g7+ ♔d6 36
♖d7+ ♔c6 37 h4 ♗xb4 38 ♖a7 ♔b6 39
♖h7 f3 40 ♔g4 ♖f1 41 ♖f7 ♗c3 42 ♖d7
f2 43 ♔f3 ♗e1 44 ♗h3 ♖h1 45 ♗g2
f1♕+ 46 ♗xf1 ♖xf1+ 47 ♔e2 ♖h1 48
♖d6+ ♔a5 49 ♖d1 ♖xh4 50 ♔xe1 ♖h1+
51 ♔d2 ♖xd1+ 52 ♔xd1 0-1.

Mephisto Vancouver 68030
Tasc R30 (active)
Sicilian. 40 in 2½ hours each

1 e4 c5 2 ♘f3 ♘c6 3 ♗b5 g6 4 ♗xc6 dxc6
5 d3 ♗g4 6 h3 ♗xf3 7 ♕xf3 ♗g7 8 0-0
♘f6 9 ♘c3 0-0 10 ♗g5 ♘d7 11 ♕g4 ♖e8
12 ♖fd1 b5 13 ♖d2 b4 14 ♘d1 ♕c7 15
♗f4 e5 16 ♗g5 f6 17 ♗e3 ♖ad8 18 b3
♕a5 19 ♘b2 ♘b6 20 ♕h4 ♖e6 21 f3 ♕a3
22 ♘d1 ♕a5 23 ♕f2 f5 24 ♘b2 ♖d7 25
♗xc5 fxe4 26 ♗xb6 axb6 27 dxe4 ♖xd2
28 ♕xd2 ♕c5+ 29 ♕f2 ♕c3 30 ♖b1 ♗h6
31 ♘d1 ♕d2 32 ♕xd2 ♗xd2 33 ♔f2 ♖e7

34 ♔e2 ♖d7 35 ♘e3 ♗xe3 36 ♔xe3 ♔f7
37 c4 bxc3 38 ♖c1 c5 39 ♖xc3 ♖d1 40 a4
♔e6 41 b4 ♖a1 42 bxc5 bxc5 43 ♖xc5
♖xa4 44 ♖c2 ♖b4 45 ♔f2 ♔d6 46 ♔g3
♖b7 47 ♔g4 h6 48 ♖a2 ♔e6 49 h4 ♖b6
50 h5 gxh5+ 51 ♔xh5 ♖b8 52 ♔xh6 ♖g8
53 g4 ♖f8 54 ♖a3 ♔f7 55 ♖b3 1-0.

Mephisto Vancouver 68030
Tasc R30 (active)
Caro Kann. 40 in 2½ hours each

1 d4 c6 2 c4 d5 3 ♘f3 ♘f6 4 cxd5 cxd5 5
♘c3 ♘c6 6 ♗f4 ♗f5 7 e3 e6 8 ♗b5 ♘d7
9 ♕a4 ♕b6 10 ♘h4 ♗d3 11 ♘xd5 ♗b4+
12 ♘xb4 ♗xb5 13 ♕a3 ♖c8 14 ♕c3 0-0
15 a4

♗xa4! 16 ♖xa4 ♘xb4 17 ♖xb4 ♕a6 18
♕d2 ♕a1+ 19 ♕d1 ♖c1 20 ♔d2 ♖xd1+
21 ♖xd1 ♕a5 22 ♗d6 ♘f6! 23 ♔c2 ♖c8+
24 ♔b1 ♘e8 25 ♗e7 ♖c7 26 ♗d8 ♕xb4
27 ♗xc7 ♘xc7 28 ♖c1 ♘e8 29 ♘f3 ♘d6
30 ♖c5 f6 31 ♔c1 ♘c4 32 ♖c8+ ♔f7 33
♔d1 ♕b3+ 34 ♔e2 ♕c2+ 35 ♔e1 ♕b1+
36 ♔e2 ♘xb2 37 ♔d2 ♕d1+ 38 ♔c3
♕c1+ 0-1.

Tasc R30 (active)
Mephisto Vancouver 68030 /10
QGA. 40 in 2½ hours each

1 d4 d5 2 c4 dxc4 3 ♘f3 ♘f6 4 e3 ♗g4 5
♗xc4 c6 6 h3 ♗h5 7 ♘c3 a6 8 g4 ♗g6 9
♘e5 ♘bd7 10 ♘xg6 hxg6 11 ♗f1 e6 12

♗g2 ♗e7 13 ♗d2 e5 14 g5 ♘h7 15 h4
exd4 16 exd4 ♘b6 17 d5 cxd5 18 ♕b3 d4
19 ♘e2 d3

20 ♗a5 dxe2 21 ♗xb6 ♕d7 22 ♔xe2 ♘f8
23 ♗e3 ♖d8 24 ♗xb7 ♕g4+ 25 ♗f3 ♕b4
26 ♗c6+ ♘d7 27 ♖ad1 ♕g4+ 28 f3
♕g2+ 29 ♗f2 ♗c5 30 ♗xd7+ ♔f8 31
♖hf1 ♖xh4 32 ♗c6 ♖hd4 33 ♖xd4 ♗xd4
34 ♕b4+ ♔g8 35 ♕e7 ♖f8 36 ♗d5 ♗xf2
37 ♖xf2 ♕g1 38 ♔e3 ♕e1+ 39 ♖e2 ♕g1+
40 ♔f4 ♕d4+ 41 ♕e4 ♕d1 42 ♕c4 a5 43
♔g3 ♕g1+ 44 ♔h3 ♕h1+ 45 ♖h2 ♕e1
46 f4 ♕e3+ 47 ♔g4 ♕g1+ 48 ♖g2 ♕a7
49 ♔f3 ♖e8 50 ♖e2 ♖xe2 51 ♕c8+ ♔h7
52 ♔xe2 ♕d4 53 ♕b7 ♕xf4 54 ♕xf7
♕g4+ 55 ♔d3 ♕f5+ 56 ♕xf5 gxf5 57 a4
♔g6 58 b4 axb4 59 a5 f4 60 a6 ♔xg5 61
a7 ♔h4 62 ♔e2 1-0.

Mephisto Vancouver 68030
Tasc R30 (active)
Sicilian. 40 in 2½ hours each

1 e4 c5 2 ♘f3 ♘c6 3 d4 cxd4 4 ♘xd4 e5 5
♘b5 a6 6 ♘d6+ ♗xd6 7 ♕xd6 ♕f6 8
♕d1 ♕g6 9 ♘c3 d5 10 ♘xd5 ♕xe4+ 11
♗e3 ♘d4 12 ♘c7+ ♔e7 13 ♘xa8 ♘c2+
14 ♔d2 ♘xe3 15 fxe3 ♘f6 16 ♕b3 ♖d8+
17 ♔e1 ♘g4 18 ♕c3 ♘xe3 19 ♔f2 ♘d1+
20 ♖xd1 ♖xd1 21 ♕a3+ ♖d6 22 ♕c5
♗e6 23 a3 ♕f4+ 24 ♔g1 ♗c4 25 ♗xc4
♕c1+ 26 ♔f2 ♕f4+ 27 ♔e2 ♕d2+ 28
♔f1 ♕f4+ 29 ♔e1 ♕d2+ 30 ♔f1 ♕f4+ 31
♔g1 ♕c1+ 32 ♔f2 ♕f4+ 33 ♔g1 ½-½.

New Product Review:
Saitek President

Only a few months after the arrival of the wooden auto-sensory Mephisto Montreal, comes another computer in the same vein, the Saitek President.

The dimensions of this new Saitek/Kasparov are similar to the Montreal at about 15" sq. The pieces are somewhat smaller (king height 2½"), but it could well be argued that this size is more in proportion to the 1½" squares.

Styling is excellent. The wide border and the black squares are in a darker wood than the Montreal, and there is no algebraic lettering nor logo to be seen. The pieces are well made and are more highly varnished than the average chess computer set. The control module (which plugs into the board and is about the size of your hand) is not quite so pretty, but has an extremely good display with huge lettering that is hard to miss.

The features list is also perfectly respectable; selectable opening books and transposition recognition, rotating display, coach mode, selctive or brute force searches, 64 levels going down to absolute beginner, 64 ply take-back, game retention, evaluation, line-ahead, search depth, etcetera. The position set-up procedure (always easier on auto-sensories anyway) is logical and quick. Avoid the 'ticking clock' option though - it sounds like a computer with woodworm.

The manual isn't terribly wonderful either, but if you don't like initiative tests, you're playing the wrong game anyway!

The technical specification doesn't detail the processor used, referring to it only as a 32 bit 'Risc-type' chip - not to be confused with a true Risc processor of course!

The standard of play is given as USCF 2120+, and even in real life, is comfort-ably over 2000 (175 BCF) judging from our very brief experience of it so far (sum total to date: the two 1-hour-each games below, plus a few 'five-minuters'), and if the President cost £400 it would be very good value.

As it is, the President costs just £299, and this transforms it into a truly remarkable bargain. For anyone with an old Super Expert or the like, looking for a worthwhile replacement within a limited budget - this may well be the computer you've been waiting for...

□ **Novag Emerald**　■ **Saitek President**

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1 d4 c5 2 dxc5 e6 3 ♘c3 ♗xc5 4 ♘e4 d5 5 ♘xc5 ♕a5+ 6 c3 ♕xc5 7 e4 ♘e7 8 ♗e3 ♕c6 9 ♕b3?! 0-0 10 ♕a3? ♖e8 11 exd5 ♘xd5 12 ♗c5 b6 13 ♗d6 ♗b7 14 c4 ♘f6 15 ♘f3 ♖d8 16 ♗e7 ♖d7 17 ♗xf6 gxf6 18 ♗d3 ♘a6 19 ♖d1 ♖ad8 20 0-0 ♕c5 21 ♕xc5 ♘xc5 22 ♗e2 ♘d3 23 ♖b1 ♘f4 24 ♖be1 ♗e4 25 ♗d1 ♗d3 26 ♗a4 ♖d6 27 b3 ♘e2+! 28 ♔h1 ♘c3 29 ♖g1 ♘xa4 30 bxa4 ♗xc4 31 ♖a1 ♖6d7 32 ♖gc1 ♗d5 33 ♘g1 ♔f8 34 ♘e2 ♗a8 35 ♘c3 ♖d2 36 ♔g1 ♔e7 37 ♔f1 f5 38 ♖ab1 e5 39 a5 bxa5 40 ♖b5 ♔f6 41 ♖xa5 ♖8d7 42 ♘b5 ♗e4 43 ♘xa7 ♖b7 44 ♔e1 ♖bb2 45 ♖a6+ ♔g7 46 ♖c7? ♖e2+ 47 ♔d1 ♖xf2 48 ♖xf7+ ♔xf7 49 ♖f6+ ♔xf6 50 ♔e1 ♖xg2 51 a4 ♖b1+ 0-1.

□ **Mephisto Montreal**　■ **Saitek President**

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1 d4 ♘f6 2 c4 e6 3 ♘f3 b6 4 e3 d5 5 ♘c3 ♗b7 6 ♗d3 ♘bd7 7 0-0 dxc4 8 ♗xc4 ♗e7 9 ♖e1 c5 10 e4 cxd4 11 ♕xd4 ♗c5 12 ♕d3 ♖c8 13 ♗f4 0-0 14 ♖ad1 ♕e7 15 ♗b5 ♖fd8 16 ♗e3 ♗b4 17 ♗g5 ♗xc3 18 bxc3 ♘c5 19 ♕c2 ♘cxe4 20 ♖xd8+ ♕xd8 21 ♗xf6 ♘xf6 22 ♘d2 ♕d5 23 ♗f1 ♕c5 24 ♘b1 ♖d8 25 ♕a4 ♗c6 26 ♕f4 ♕d5 27 ♕c7 ♗b7 28 a3 ♖c8 29 ♕g3 ♘e4 30 ♕e3 ♖d8 31 ♕f4 ♕c6 32 c4 f6 33 ♕g4 e5 34 ♖d1 ♖xd1 35 ♕xd1 h6 36 ♕d8+ ♔f7 37 ♕b8 a6 38 ♕a7 g6 39 ♕b8 b5 40 ♕a7 ♔e6 41 f3 ♘d6 42 cxb5 ♘xb5 43 ♕e3 h5 44 ♗d3 f5 45 ♕h6 ♔d5 48 ♗xc2 ♕xc2 (0-1, 79).

Virtual Reality

Mike Healey, MD of Countrywide, reviews some some of the crazy happenings of the last few months

Crazy it certainly was. We are always quite busy here at base (or Wilburton Towers as our editor likes to call it), but we had geared up to be something like double the norm during the Kasparov / Short epic. A couple of weeks into the match, and we thought we were being a little bit optimistic, as there had been no discernible change, then suddenly *WHAMBO* - all hell broke loose. Activity then ran at about 400% of normal, right the way through to Christmas. We were working about 100 hours a week, and each day was merging into the next like one great blob. We could not help but speculate what would have happened if Nigel had been holding his own, or even winning! So was it enjoyable, or just downright stressful? Everyone here was talking about stress and pressure way beyond the call of duty. Were we justified?

A few years ago, I interviewed a young lady for a secretarial position, and amplifying something in her CV, she told me she was used to working under extreme pressure, as she'd been Assistant Manageress for a catering business providing daily lunches for 200 executives at a large Cambridge company, with everything needing to be started and finished in well under one hour. Fair enough, thought I - but reflecting on this conversation some time later, the more absurd it seemed. I decided then that a better definition of extreme pressure was being a paramedic in wartime, injured yourself, crawling on your belly in a filthy swamp, under enemy mortar fire, to rescue and try and save the life of another soldier even more badly wounded. Anyway, that's my pet theme, and I'm sticking to it!

But so what, I hear you say, whether it was extreme pressure or not, what about all the bucketloads of money you must have made! Didn't that soften the blow a bit? "Nonsense" would be my response. Life is still very, very hard - you've no idea how expensive it is to get insurance on a Ferrari Testarossa.

Seriously, many customers who've been here say they'd love my job. If it were a matter of playing chess and talking chess all day so would I! It seems however that bureaucracy wants an ever increasing slice of your time - the Tax man, VAT man, Health & Safety, Fire regs., National Insurance, Customs and Excise Intrastats, census forms, company law requirements and so on and so on. But all that only takes up 80% of one's day, so there is still plenty of time left for actual work!

The real killer though is repairs and servicing. This is why, in our opinion; most people coming into chess computers usually make a sharp exit within a couple of years. If you sell chess books or sets, no-one rings up after 18 months to say the book is malfunctioning. Contrast this with having an irate call from a customer saying his computer is cutting out once in every 2,813 games. "Yes sir, a quick ten years of testing and we'll isolate the problem without fail". Not only this - a kind of reverse Murphy's Law (don't take it personally, Gerald) invariably operates. Computers that are faulty on despatch to us work 100% on arrival back here. But there must be something wrong you think, so you grin and bear it and buckle down to a few days of midnight oil burning. This is when a "GSOH" is somewhat essential, especially when a week later you finally discover that the customer had not been aware of the en passant rule.

Talking of sense of humour, or rather lack of it, we received a letter, right in the middle of the Gazza/Nosher frenzy. The writer (not an SS subscriber) was wanting to purchase two PC programs within the following six months and needed information. There were 32 unbelievably detailed questions (or rather demands), some of which were sub-divided, and others further sub-divided. One alone required all the games from the last two Aegon tournaments, printed and annotated, with detailed analysis of how every current PC program would have handled all the moves, at all levels, at all style settings.

If we had not known of this chap's past form (*a highlight of which was asking us for the home addresses of top PC programmers! ed.*), we'd have thought it was a wind-up, but no - it was for real. We wrote back (in a way that was clearly meant not to be too serious), telling him that it was 950 hours at £15 an hour (plus VAT) to respond meaningfully to his requirements, and that on receipt of his cheque for £16,743.75 we would commence work on the project and report back to him within ten months. His long rambling reply was an ever greater masterpiece than the original letter. It included the words: "I for one will not pay £15 per an hour (*sic*) and £16,743.75 just for a price list and a few leaflets without advice".

Sometimes, you get genuinely funny things. We supply a number of House of Fraser shops, including Rackhams of Leicester. Their Department Sales Manager (Bill) rang up one day and I answered the call.

He told me they had a Russian in the shop - the customer wished to buy an Exclusive MMV, but needed a continental adaptor to go with it, and the adaptor needed to be posted out for arrival at Rackhams the next day. Bill wondered whether we had any in stock, and was delighted when I said no problem. I asked him where the chap was actually from - was it Moscow? There was a long stunned silence, and then the conversation went roughly as follows:

Bill: How did you know?
Me: How did I know what?
Bill: That he was from Moscow. This is absolutely incredible - you must be psychic.
Me: (puzzled) Well, it was a reasonable guess.
Bill: You could not have guessed.
Me: (more puzzled) Well it was a fair bet that if he came from Russia, he was quite likely to live in Moscow.
Bill: I never said he was from Russia.
Me: You did.
Bill: I didn't.

It then became almost pure pantomime, along the lines of "Oh, yes you did" and "Oh, no I didn't". The conversation would have probably terminated in total confusion if both of us had not been sufficiently pig-headed to prove the other one wrong. Finally, the truth outed - Bill had originally said "Mike, we have a rush on; the customer wants..." I mishear it as 'Russian'. Yet Russian he happened to be. Put that in a TV comedy sketch and the viewers would say it was far-fetched. Needless to say, it's been a standing joke between us ever since.

Must sign off here, before too many readers complain that the article has no "Mates in 5" or games of the century. It's time to open the post, maybe another adaptor order for Moscow, Vladivostok or Siberia. As long as there's not a cheque for £16,743.75!

How Good is Your CC?

A double helping of HGYC this time; the first game is a straight contest between the new Genius 68030 module and the R30 (both set to Active style). The second game looks at a rook and pawn ending and is between the whole of the Mephisto Laptop range plus the new Saitek President.

As ever, before settling down to exercise the rewind and fast-forward buttons on your own computer, we suggest you try out the tests on yourself. Apart from being good practice in its own right, this will give you a better appreciation of your CC's true performance than the final score alone.

The computers are on Black's side in the first game, and on White's in the second. Three minutes a move average in all cases.

Bogo-Indian
□ **Adianto**
■ **Christiansen**
San Francisco 1991

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1 d4 ♘f6 2 ♘f3 e6 3 c4 ♗b4+ 4 ♗d2 a5 5 g3 d6 6 ♗g2 ♘bd7 7 0-0 e5 8 e3

8...♗xd2

3 points, as per the R30. Nothing for

Genius's 8...c6. 2 points in the unlikely event that you intended to sacrifice a piece with 8...♕e7 9 ♗c1 e4 10 ♘g5 h6 11 ♘h3 d5 12 c5 g5!?.

9 ♕xd2 0-0 10 ♘c3 ♕e7 11 ♖fd1 ♖e8 12 ♘b5

12...♘f8

2 points, again going to the R30. Zero for 12...♘b6 from Genius.

13 c5

13...e4

"Brave but necessary" and worth 5, which both scored. 13...dxc5 fails to 14 dxe5 ♘g4 15 ♕c3! ♘g6 16 ♖ac1! b6 17 h3.

14 cxd6 cxd6 15 ♘e1

15...♗g4

3 points. The R30 got it right; Genius chose 15...d5. 2 for 15...♗f5 ("sound but less dynamic"), and 1 for 15...♘d5!?

16 ♖dc1

16...♘e6

2 points for both computers.

17 ♖c2

17...♕d7

3 points to the Genius. The R30 thought about it for a long time, but then changed its mind.

18 a4

18...♘g5

6 points. 2 for either 18...♗f5 (R30) or 18...h5. Genius chose 18...d5. Both machines thought they were about two pawns down here.

19 ♘c7

19...♗f3

5 points. Nothing for 19...♘h3+ (20 ♗xh3 ♗xh3 21 ♘xe8) picked by Genius, or 19...♖ec8 from the Tasc.

20 ♘xf3 exf3 21 ♘xe8

21...♘h3+

4 points apiece. Black wins two minor pieces for a rook. 2 for 21...♖xe8.

22 ♔h1 fxg2+ 23 ♔xg2 ♖xe8 24 ♕xa5

24...d5

2 points. Black shuts of White's queen from the kingside. The R30 chose correctly, while Genius had 24...♕e6 for nil.

25 ♖ac1

25...h5

2 points, but four for the even better 22...♘g5! (as chosen by both) forcing the weakening 26 f4.

26 ♕b5

26...♕f5

2 points for the Genius. Exchanging queens simply puts Black on the wrong side of an ending, and the R30's 26...♕e6 doesn't score either.

27 ♕e2 ♘g5 28 f3

28...h4

The Genius continues to catch up with 5 points here. Nothing for the Tasc's 28...♕h3+.

29 gxh4 ♕h3+ 30 ♔h1

30...♘xf3

2 points each.

31 ♕g2

31...♕xg2+

2 points each.

32 ♔xg2

32...♖xe3

And another 2 points each.

33 ♖c3 ♘xh4+ 34 ♔f1

34...♖e4

Worth 2 points, but both machines suf-

fered a penalty point for their choice of 34...♖xe3.

35 ♖b3

35...♖f4+

4 points for the R30; nothing for Genius's 35...♖xd4. Both computers picked up all the remaining points on offer.

36 ♔g1

36...♘e4

2 points.

37 ♖xb7

37...♖f2

2 points.

38 ♖b3

38...♖g2+

2 points and 0-1.

Of the 66 points available, the R30 scored 42 points (or 63.6%) and the Genius 68030 36 points, or 54.5% of maximum. These figures can be measured on the following scale, and in view of the calibre of these two computers (which are both comfortably on the right side of FM standard at the very least), it is fair to say that neither really did itself full justice on this occasion. On the other hand, it should be remembered that both these computers are at least as strong as the person who did the annotations in the first place!

90+% GM
80-89% IM
70-79% FM
60-69% Candidate Master
50-59% Top regional player
40-49% Strong Club Player
26-39% Average Club Player
16-25% Casual Player
0-15% Beginner

The next test comes from an excellent endgame book *Rate Your Endgame*, written by Edmar Mednis and Colin Crouch. Some endgame treatises are too special-

ised for the average player, others too su-
perficial, but this Cadogan publication
suffers from neither fault. The game
comes from the chapter on rook and pawn
headings, with the sub-title being "Playing
to Win: The Active Rook".

□ **Csom**
■ **Zuckerman**
Cleveland 1975
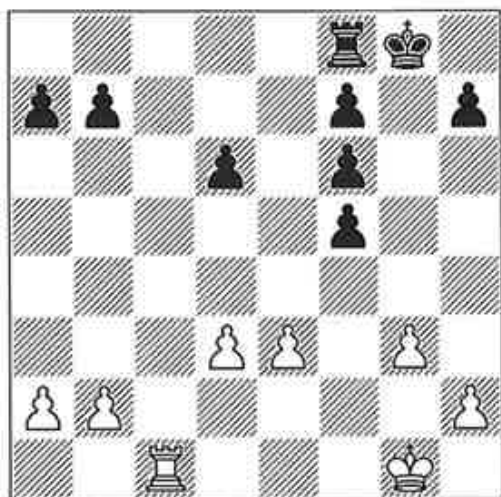
1 ♖c7

A rather generous 3 points for this obvi-
ous move. No machine disgraced itself.
1...♖b8
2 ♔f2

4 points, again for a natural move; the
Milano, Short, and Modena all chose the
unnatural but similar 2 ♔g2.

As author Mednis seems fairly liberal
with his points (in this game at any rate),
we will stick to the letter of the law and
give 2 ♔g2 zero, without second-guessing
as to possible transpositions. The Presi-
dent got it right, and the Berlin scored 2
for 2 b4. 2 points in the event of a4, but a
solitary point only for the premature 2
♖d7, which gives Black control of the sev-
enth rank after 2...♖c8!
2...a5
3 ♔f3

3 points, as per all but the Modena,
which gets 1 for ♖d7.
3...♔g7

4 ♖d7

For 3, which all notched up bar the
President, which gets a one point penalty
for choosing 4 ♔f4? (If you want to know
why this has a "?" - buy the book!)
4...b5!
5 ♖xd6

1 point each.
5...♖c8!

Black is doing the best he can in a bad
position.
6 ♖d5

"The only sensible move" and all the
computers were sensible enough to pick
up 2 points.
6...♖c2 7 ♖xb5

1 point each.
7...a4
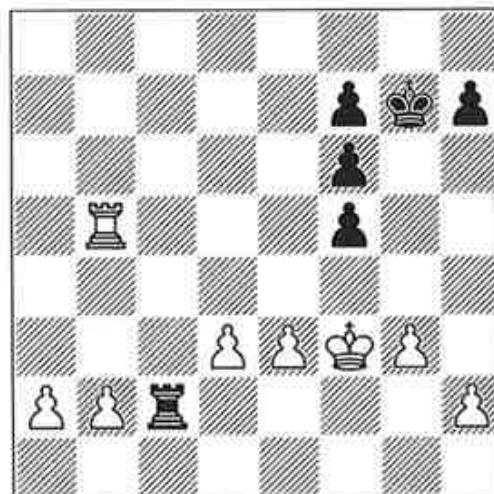
8 ♖a5

1 point. 4 points though, for 8 h4, mak-
ing the win much more straightforward (as
per Short, Milano, and Berlin) and 3 for h3
(the other two). 1 point for 8 ♖b4.
8...♖xb2
9 ♖xa4

1 point each.
9...♖xh2
10 ♖a8!

5 points, which none scored. 10 d4 (NS
and Berlin) is worth 2, as is 10 ♖a7 (Berlin
and President). The Modena chose the
weird and scoreless 10 a3.
10... h5 11 a4

2 for this (all bar the Berlin) or 11 d4

(Berlin).

11...h4

12 gxh4

2 points each. Minus one for 12 a5? throwing the win away.

12...Rh3+

13 Kf4

2 points each.

13...Kg6
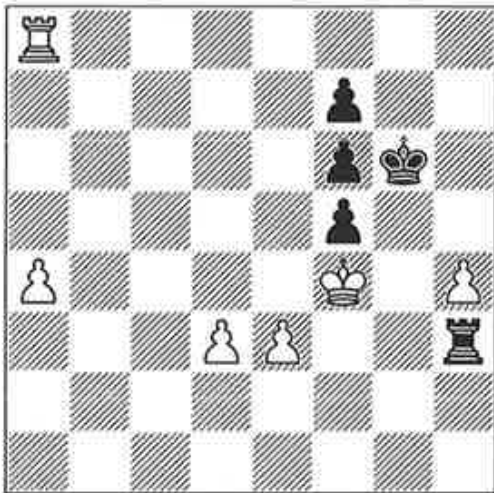
14 a5

Worth 2, but Rg8+ is better (4) and was chosen by the Milano, Berlin and President. NS and Modena went for h5+. Minus 1 for Rh8, giving Black a chance to draw.

15 Rxh4+ 15 Kf3 Rh3+

16 Kg2

4 for this and the President, 2 for 16 Kf2, and just one for the ugly 16 Ke2, as picked by the rest.

16...Rxe3

17 a6

1 point for all bar NS and Milano, which had 17 d4 instead.

17...Re2+

18 Kf3

2 points each.

18...Ra2

19 a7

2 for this (all), 1 for 19 d4.

19...Kg7

20 d4

2 points each. All the computers scored maximum from here on.

20...Ra3+

21 Kf4

1 point.

21...Ra4

22 Kxf5

1 point.

22...Ra5+

23 Kf4

2 points.

23...Ra4

24 Ke4

3 points.

24...Ra5

25 d5

2 points

25...f5+

26 Ke5

1 point.

26...Kh7

27 Kf4

1 point.

27...Rxd5

28 Rh8+

2 points and 1-0. So, the final tally is 46 to the Nigel Short (a.k.a. SuperMilano) 42 to the Modena, 50 to the Milano, 53 to the Berlin, and 55 to the new Saitek President. Although its somewhat 'lucky' points gain over its rivals on move 2, and the gaffe on move 4 should be taken into account to some extent, this was nonetheless an excellent first showing for the President - perhaps a match against the Short and/or Milano is called for... The fact that the Milano beat its big brother by a few points is not really so remarkable; from the grading differential it should win around four games out of ten after all, and anyone who has played against both will know that the Short is often noticeably sharper in the middlegame than the Milano - not that the latter is any slouch of course!

56+ =IM or better; 51-55 =200 BCF +; 46-50 = Expert; 41-45 =Good Club Player; 33-40 = Club Player; 23-32 = Average Player; 0-22 = Social player / beginner.

The S/S Rating Guide

For the benefit of new readers, the hiero-glyphics on the back cover are explained, whilst regulars may be interested in the news from Ply...

The internationally recognised standard for assessing the strength of chessplayers is called the Elo Rating System, after its inventor Professor Arpad Elo. For UK players, there is also the system operated by the British Chess Federation. Both systems express strength in the form of a score based on results. The Elo figure can be translated into BCF by the formula 'Elo minus 600, divided by 8'. Our back cover has two rating lists, both of which have been built up over many years. The *Selective Search* list (abbreviated to 'S/S') contains games played at 'Game in 60 minutes' or longer, whilst the *Ply* list only has games played at 40 moves in 2 hours, the most frequently used time setting in international tournaments. 'Ply' is the name of a Swedish magazine devoted to chess computers, and their rating list is run as part of an ongoing university project. It is therefore free of commercial considerations of any kind. They kindly allow Selective Search to make use of their data.

Unfortunately Elo points are not identical from one country to the next, so one should add 100 points to the *Ply* figures to arrive at an 'English translation'; i.e. a Swedish player with an Elo of 2259 would be regarded as around 2359 over here. Beware of manufacturer's claims regarding 'USCF' grades. This is the American system, and runs at another 100 points higher than the UK, or 200 points more than *Ply*!

All the computers are ranked in strength order according to the S/S list, which just shows 'name, rank and number' plus the quantity of games on which the grade is based. The *Ply* list shows the Elo rating (without the 'add 100' adjustment mentioned above), the BCF equivalent, the number of games taken into consideration, plus another column marked '+/- Elo'. This indicates the margin of error.

For example, a computer graded at 2259 on the basis of 250 games has a margin of error of 59 Elo; i.e. the figure of 2259 might actually be as low as 2200, or as high as 2318; however the median figure is more likely to be correct than those at the extremes. The higher the number of games played, the more reliable the grade, so this 'plus or minus' figure comes down progressively as more and more games are played. Fortunately, the ratings of humans are not subjected to such rigours - your grade is your grade, for a whole year at a time!

To put the figures into context, 1000 Elo (BCF 50) is beginner standard. From here to 1400 (BCF 100) is good hobby player / weak club player territory. 1600 (125) would be regarded as a slightly better than average club player, and 2000 (175 BCF) as a very good one. Anyone over 2200 (BCF 200) is seriously strong by most standards, very likely playing for his county or in the top section of weekend congresses. A 2350 (219 BCF) player might well hold a title (perhaps FIDE Master, abbreviated to FM); a 2400 (BCF 225) player could be an International Master (IM), and 2500 (BCF 237) is Grandmaster (GM) standard. World Champion Garry Kasparov is Elo 2805 at the moment, or 257 BCF - the highest rating of all time.

Rating News From Ply

Time constraints caused by the 'chess boom' over the last couple of months means that the *Ply* list is as last time. Next issue will have a full update to both lists.

Ply reports that the Saitek Sparc 20Mhz has entered their list at 2197 after 152 games. Their other new entrant is the Complete Chess System, showing at 1998 after 106 games. This makes it around 260 points weaker than the top 2 of Genius 1 and M-Chess Pro.

Ply's next listing should see the inclusion of MG2, Gideon Professional, Chess Friend, and Novag's Ruby / Emerald.

Timing Tests - R30 v Genius 68030

1 a7! ♗xh2 2 ♗e8! ♖xe8+ 3 ♔f7 winning; if 3...♖g8, 4 a8♕. Genius 68030 16 secs., R30 16 secs. MG2 19 secs.
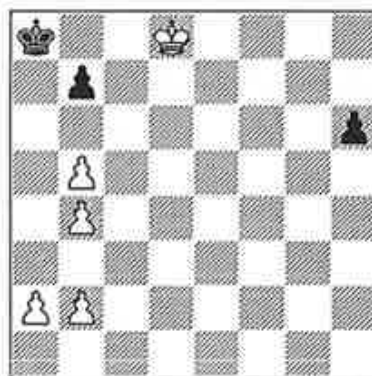
1 ♔c7! h5 2 ♔b6 h4 3 ♔a5 h3 4 b6 h2 5 b5 h1♕ 6 a4 ♕a1 7 b4 stalemate. Genius 68030 17 secs., R30 61 secs., MG2 1m 14 secs.
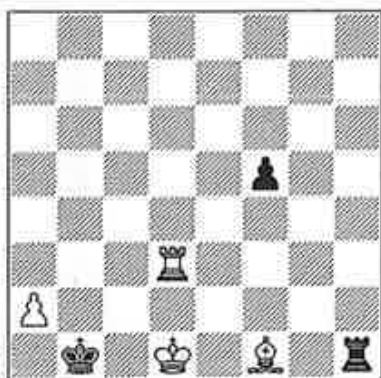
1 a3! ♖xf1+ 2 ♔e2 ♖f4 3 ♖b3+ ♔a2 4 ♖b4 wins. Genius 68030 32 secs., R30 25 secs., MG2 17 secs.

1 ♖xd6 ♕xd6 2 ♘xf7+ ♖xf7 3 ♖e8+ ♕f8 (3...♖f8 4 ♕d2!) 4 ♖xf8+ ♖xf8 5 ♕d2 (threat 6 ♕xh6+) 5... ♔g8 6 ♕d4 ♖f7 7 ♗xc8 ♖xc8 8 ♕xc5. Genius 68030 10m 07 secs., R30 64 secs! MG2 6m 37 secs.
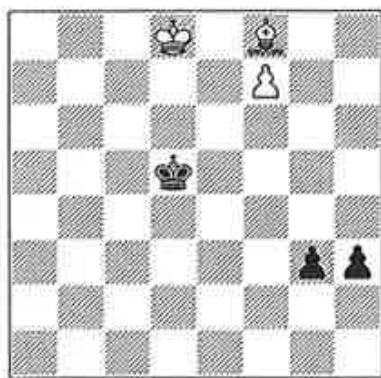
1 ♗c5 h2 2 f8♕ h1♕ 3 ♕d6+ ♔c4 4 ♕d4+ ♔b5 (if 4...♔b3 5 ♕d3+ ♔b2 6 ♗d4+ ♔c1 7 ♕f3 followed by ♕h1+) 5 ♕b4+ ♔c6 6 ♕b6+ ♔d5 7 ♕b7+ and ♕x♕ next move. Genius 68030 5secs. R30 43 secs. MG2 instant.

1...♗c5!! 2 dxc5 (2 ♘d2 h6! 3 ♗h4 ♗e8 ♕f8+ ♘g8 wins) 2...♗e6! 3 ♕h5 ♕d5! 4 ♘d2 h6 5 ♘xe4 ♗f7! 6 ♕g4 hxg5 7 ♘xg5 ♖d8 8 ♕h4+ ♔g8 9 ♕h7+ ♔f8 10 ♕h8+ ♗g8 11 ♕h5 ♘g6 12 h4 ♕xg2+! Genius 68030 and MG2 not found 20 mins., R30 47 secs!

Some very impressive times here, but a clear indication of the relative strengths of the Genius 68030 vis-a-vis R30, with the former usually doing better in endgame situations and the R30 excelling in middlegame complications. MG2 was running on a 486/33. This was not run from a system disc for extra speed (at the cost of losing the mouse facility), but in the usual way that most people - we think - would use Genius in real life.

	S/S			Ply			
Rank	Computer	BCF	Games	Elo	BCF equiv. Elo	+/-	Games
1	Tasc R30	229	49	-	-	-	-
2	Meph Genius 68030	229	8	-	-	-	-
3	Meph Lyon 68030	218	374	2258	207	59	250
4	Meph Vanc. 68030	216	375	2235	205	37	451
5	Meph Risc 1MB	216	1046	2218	204	31	593
6	Meph Port 68030	214	460	-	-	-	-
7	Saitek Risc 2500	212	494	2221	203	30	628
8	Saitek Ren.Sparc 20	212	234	2194	202	47	234
9	Meph Vanc. 68020/12	205	1481	2164	194	27	778
10	Meph Lyon 68020/12	204	2492	2152	194	23	1029
11	Meph Vanc. 68000	203	334	2108	189	27	721
12	Meph Berlin	201	653	2122	190	32	538
13	Meph Port. 68020	200	1713	-	-	-	-
14	Fid Elite 68030 V9	200	599	2128	191	45	324
15	Meph Lyon 68000	197	1325	2105	188	25	857
16	Meph Almeria 68020	196	1003	-	-	-	-
17	Meph Port. 68000	193	1478	-	-	-	-
18	Fid Mach 4/Elite V7	193	1396	2081	185	24	843
19	Mephisto Nigel Short	192	5	-	-	-	-
20	Saitek Brute Force	188	223	2029	179	34	437
21	Fid El. 68000 x2 V5	188	258	-	-	-	-
22	Meph Roma 68020	186	1043	-	-	-	-
23	Meph Polgar 10	186	609	-	-	-	-
24	Novag Diablo/Scorpio	186	1202	2000	175	25	805
25	Meph Almeria 68000	184	1025	-	-	-	-
26	Meph Dallas 68020	184	996	-	-	-	-
27	Fid Mach 3 68000 v2	181	5009	1997	175	15	2218
28	Meph Milano	180	626	1960	170	27	659
29	Meph MM5	180	1319	1976	172	22	1002
30	Meph Polgar 5	179	2082	1970	171	18	1363
31	Meph Dall./Mon.Dall	178	2283	-	-	-	-
32	Nov S.Forte/Exp. 6C	178	2371	1956	169	19	1391
33	Meph Roma/Montreal	176	2267	-	-	-	-
34	Meph Academy	175	2000	-	-	-	-
35	Meph Modena	173	174	1887	161	31	505
36	Meph Amsterdam	173	2373	1924	160	22	1020
37	Nov S.Forte/Exp. 6B	173	1343	-	-	-	-
38	Meph Mega 4	172	2435	-	-	-	-
39	Fid Mach 2B/C 68000	172	2909	-	-	-	-
40	Saitek Gal-Ren D10	172	1209	-	-	-	-
41	Fid Travelmaster	170	505	1905	163	65	123
42	Meph S.Mond2/MC4	170	224	-	-	-	-
43	Novag Ruby/Emerald	170	26	-	-	-	-
44	Meph MM4	169	2866	-	-	-	-
45	Saitek Travel Champ	169	45	-	-	-	-
46	Nov S.Forte /Exp. 6A	168	1155	-	-	-	-
47	Saitek Turbo King II	166	834	1867	159	24	877
48	Meph MonteCarlo	166	262	-	-	-	-
49	Saitek Gal. / Ren. C8	166	313	-	-	-	-
50	CXG Sphinx Galaxy	165	2049	1876	160	19	1412
51	Conchess Ply.Vict.5.5	165	697	1865	158	26	701
52	Fid Mach 2A 68000	164	338	-	-	-	-
53	Saitek GK2000	163	112	1903	164	30	550
54	Novag Expert 5/6	161	532	-	-	-	-
55	Fid Club 68000	161	1459	-	-	-	-
56	Novag Jade / Zircon	161	18	-	-	-	-
57	Novag Forte B	159	1917	-	-	-	-
58	Meph Rebell	159	2121	-	-	-	-
59	Fid Avant Garde 5	159	1721	-	-	-	-
60	Fid Par E./Des. 2100	158	2538	-	-	-	-
61	Saitek Stratos /Corona	158	3053	-	-	-	-
62	Novag Forte A	157	2202	-	-	-	-
63	Meph S.Mondial 1	157	1420	-	-	-	-
64	Conchess Plymate 5.5	157	2169	-	-	-	-
65	Saitek Simultano	157	364	-	-	-	-
66	Saitek Gal./Ren. B6	157	976	-	-	-	-
67	Conchess 6	155	107	-	-	-	-
68	Fid Excellence 4	155	1740	-	-	-	-
69	Novag Expert 4	155	962	-	-	-	-
70	Conchess Plymate 4	153	372	-	-	-	-
71	Saitek Turbo Kasp 4	153	512	-	-	-	-
72	Fid Elite C	152	182	-	-	-	-
73	Mephisto MM2	151	781	-	-	-	-
74	Saitek Gal. / Ren. B4	151	37	-	-	-	-
75	Fid Exc./ Des. 2000	150	1646	-	-	-	-
76	Saitek Prisma / Blitz	149	306	1736	141	49	202
77	Conchess 4	148	509	-	-	-	-
78	Novag Super Const.	147	3689	1730	141	18	1582
79	Novag Super Nova	147	411	1732	141	37	350
80	Novag Supremo	144	28	-	-	-	-
81	Meph Europa/M.Polo	143	240	-	-	-	-
82	Novag Super VIP	143	335	-	-	-	-
83	Fid Prestige / Elite A	142	856	-	-	-	-
84	Fid Sensory 12	141	1340	-	-	-	-
85	Saitek Superstar 36K	139	997	-	-	-	-
86	Conchess 2	139	1096	-	-	-	-
87	Novag Const. 3.6	137	825	-	-	-	-
88	Novag Quattro	137	585	-	-	-	-
89	Novag Primo / VIP	137	354	-	-	-	-
90	Meph Mondial 2	136	31	-	-	-	-
91	Fid Elite B / Original	133	236	-	-	-	-
92	Meph Mondial 1	131	247	-	-	-	-
93	Novag Const. 2.0	130	1289	-	-	-	-
94	CXG S.Ent/Adv.Star	128	922	1559	120	39	386
95	CXG 3000	123	17	-	-	-	-
96	Fid Sensory 9	121	1114	-	-	-	-
97	Saitek Ast/Conq/Cavl	121	61	-	-	-	-
98	Nov Mentor16/Amigo	118	22	-	-	-	-
99	GGM + Steinitz	117	287	-	-	-	-
100	CXG 2001	116	84	-	-	-	-

PC Programs

Rank	Computer	BCF	Games	Elo	BCF equiv. Elo	+/-	Games
1	Chess Genius 2 (486/50-66)	-	-	2364	220	57	197
2	ChessMachine 30Mhz (King 2.0, aggressive)	-	-	2326	216	36	480
3	Mephisto Gideon Pro (486/60-66)	-	-	2319	215	59	176
4	Chess Genius 1 (486/50-66)	-	-	2286	211	43	323
5	M-C Pro 486/50-66	-	-	2283	210	38	407
6	ChessMachine 30Mhz (Schroeder 3.1)	-	-	2280	210	62	168
7	ChessMachine 16Mhz (Schr. 512k ARM2)	-	-	2211	201	32	567
8	ChessMachine 16Mhz (King 512k ARM2)	-	-	2199	200	38	367
9	M Chess 1.1-1.71 (on 486/33)	-	-	2196	199	44	326
11	Socrates 3.0 (486/33)	-	-	2163	195	68	104
12	Fritz 2 (486/33)	-	-	2153	194	44	263
13	M Chess 1.1 - 1.71 (on 386/25-33)	-	-	2128	191	36	408
14	Hiarcs Master 1.0 (486/33)	-	-	2086	186	53	174
15	Rex Chess 2.3 (on 386/25-33)	-	-	2029	179	65	126
16	Fritz 1.0 486/33	-	-	2022	178	63	128
17	Zarkov 2.5 386/25-33	-	-	2018	177	56	168
18	Fritz 1.0 (386/25-33)	-	-	2008	176	66	113
19	Complete Chess System (486/33)	-	-	2003	175	62	133
20	Rex Chess 2.3	-	-	1928	166	53	174